Description of Australian Species of Georyssides and Parnides

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[Read 1st August, 1864.]

The insects described in the present paper are possibly not uncommon; but on account of their small size, dull appearance, and sluggish movements, they are not easily detected. They derive their chief interest from the evidence which they afford that the families to which they belong have their representatives in the Australian Fauna. In these families, though a considerable number of individuals are generally found together, the number of genera and of species is almost everywhere small.

GEORYSSIDES.

Georyssus Australis.

Niger tuberculosus; antennis 7-articulatis, articulo ultimo fusiformi; thorace gibboso sphærulato; elytris porcatis.

Long. 0·05 poll. Pl. XIV.

Paramatta; under a stone near an occasional water-course. November, 1862.

Although this species evidently belongs to this family, it may be questioned whether it ought not to be regarded as the type of a new genus. I prefer, however, for the present, and until I have an opportunity of examining more specimens, to leave it under the old generic name. The antennæ differ from those of previously known species, in having the last three joints of the normal number consolidated into a single fusiform joint. In its general shape it somewhat resembles *G. pygmæus*, but it is smaller than that species. The head is extremely depressed. The thorax very tuberculose, two rows of tubercles make a median longitudinal line between them; towards the base are two almost hemispherical protuberances covered with tubercles, and presenting a

singular resemblance to some forms of *Trilobites*, these protuberances appearing like the eyes of those crustaceans. They are more prominent in some specimens than in others.

PARNIDES.

As far as we know at present this family is represented in our Fauna by the genera *Lutochrus*, (?) *Elmis* and *Limnius*, all of which I have been so fortunate as to capture at Paramatta. Mr. MacLeay has also found a species of the latter genus in a water-course on the side of Mount Kembla, Illawarra.

Lutochrus. Erich.

Lutochrus Australis.

Breviter hirtus, fuscus ; capite punctato ; thorace minute punctato, antice contracto lateribus sinuatis ; elytris punctis in 10 lineis dispositis notatis.

Long. 0·15 poll. Pl. XIV.

Paramatta River ; on a floating stick. December, 1862.

Although I have placed the present species in this genus, there are yet important differences which distinguish it from the description given by Erichsen. The inner lobe of the maxillæ terminates in three corneous curved teeth or sets of teeth ; the last joint of the palpi is sub-oval ; and there are lateral ridges on the underside of the thorax. In other particulars it appears to agree with *Lutochrus*.

The insect is very slow in its movements, and appears to live in little companies. All that I have taken were inhabiting the same small floating stick.

Elmis. Latr.

This genus is represented by at least five well defined species, of which three are found at Paramatta. When the rivers in the interior have been examined, there can be little doubt that many new forms will be detected.

Sect. 1.

Without lateral ridges on Elytra.

Elmis novem-notatus.

Elongatus niger minute punctatus ; antennis gracillimis ; tho-

race lineis lateralibus carente, ad marginem anteriorem testaceo; elytris maculis 8 elongatis testaceis, obsolete striatis.

Long 0·11.

Paramatta River; on submerged branches and under stones. December—March.

Each elytron is covered with minute punctures, and has two testaceous spots near the shoulder and two near the base, the inner spots being of an elongated form.

ELMIS METALLICUS.

Æneus; thorace punctato, ad medium transverse depresso, sulcis lateralibus dimidiatis; elytris punctato-striatis.

Long 0·07.

The Murray River. *Dr. Howitt.*

This species is very distinct from all the other Australian *Elmides* with which I am acquainted. It resembles a Spanish species of which I have a specimen unnamed. There are eight punctate striæ on each elytron.

Sect. 2.

With lateral ridges on thorax and elytra.

ELMIS POLITUS.

Niger politus; antennis gracilibus; thorace linea media impresso; sulcis lateralibus obsoletis; elytris punctis minutis in 3 lineis dispositis.

Long. 0·05.

The Parramatta River (March), under stones in shallow water.

The polished elytra of *clean* specimens are a contrast to the usual state in which most of the Elmides are found.

ELMIS MONTANUS.

Niger; antennis gracilibus; thorace ad medium longitudinaliter depresso; elytrorum disco punctis magnis in 3 lineis dispositis notato.

Long. 0·06 poll.

Illawarra. *W. MacLeay, Esq.* Under stones in a stream on the side of Mount Kembla.

This species closely resembles the preceding; the lateral ridges are more distinct on the thorax and elytra; the depression on the thorax is less decided, the punctures on the thorax much larger, and the whole insect is larger. The form of both this and the preceding species greatly resembles that of *Elmis æneus*.

ELMIS PUNCTULATUS.

Niger; antennis gracilibus; thorace minutissime punctato linea media longitudinali impresso; elytrorum disco irregulariter minute punctato.

Long. 0·06 poll.

Paramatta River; on a submerged branch. December.

The lateral lines on the thorax and elytra are in this species almost obsolete. It very closely resembles the preceding species, but is rather larger, and the punctures on the disk of the elytra are not so regular. The inner edge of the fore tibiæ is strongly spined.

LIMNIUS. Illig.

Sect. 1. *No lateral ridges on elytra.*

LIMNIUS QUATUOR-MACULATUS.

Politus irregulariter punctatus; antennis gracilibus; thorace ad medium transverse depresso, sulcis lateralibus dimidiatis; scutello subtriangulari punctato; elytris 4 maculis testaceis magnis.

Long. 0·06.

Under stones in Paramatta River. In company with *Elmis politus* and *E. novem. notatus*.

The maculæ on the elytra vary in size in different individuals, especially those near the shoulders; so much so, indeed, that in some individuals, they coalesce and form a wide testaceous transverse band. On the maculæ the punctures disappear, but not the setæ. The subtriangular scutellum hardly agrees with the form of that organ in other species of this genus, and closely connects this interesting form with *Elmis*, if, indeed, it ought not to be placed in that genus.